

Welcome to the Chickahominy Power Plant Information Session



Please have a seat. Presentation will begin at 6:30 p.m.



Public Information Session

Groundwater Withdrawal Special Exception

Opening Remarks

Jutta Schneider

Director, Water Planning Division

Virginia Department of Environmental Quality

December 5, 2019

Overview

- Presentation
 - Background on the occurrence of groundwater
 - DEQ's general process of groundwater application evaluation
 - Differences between permits and special exceptions
 - Results of the technical evaluation
 - Conditions of special exceptions
 - No questions during presentation, save for Information Tables
- Information Tables
 - 4 tables staffed by DEQ personnel after presentation
 - Can provide additional information and clarify questions about the proposed water withdrawal



Public Information Session

Groundwater Withdrawal Special Exception Presentation

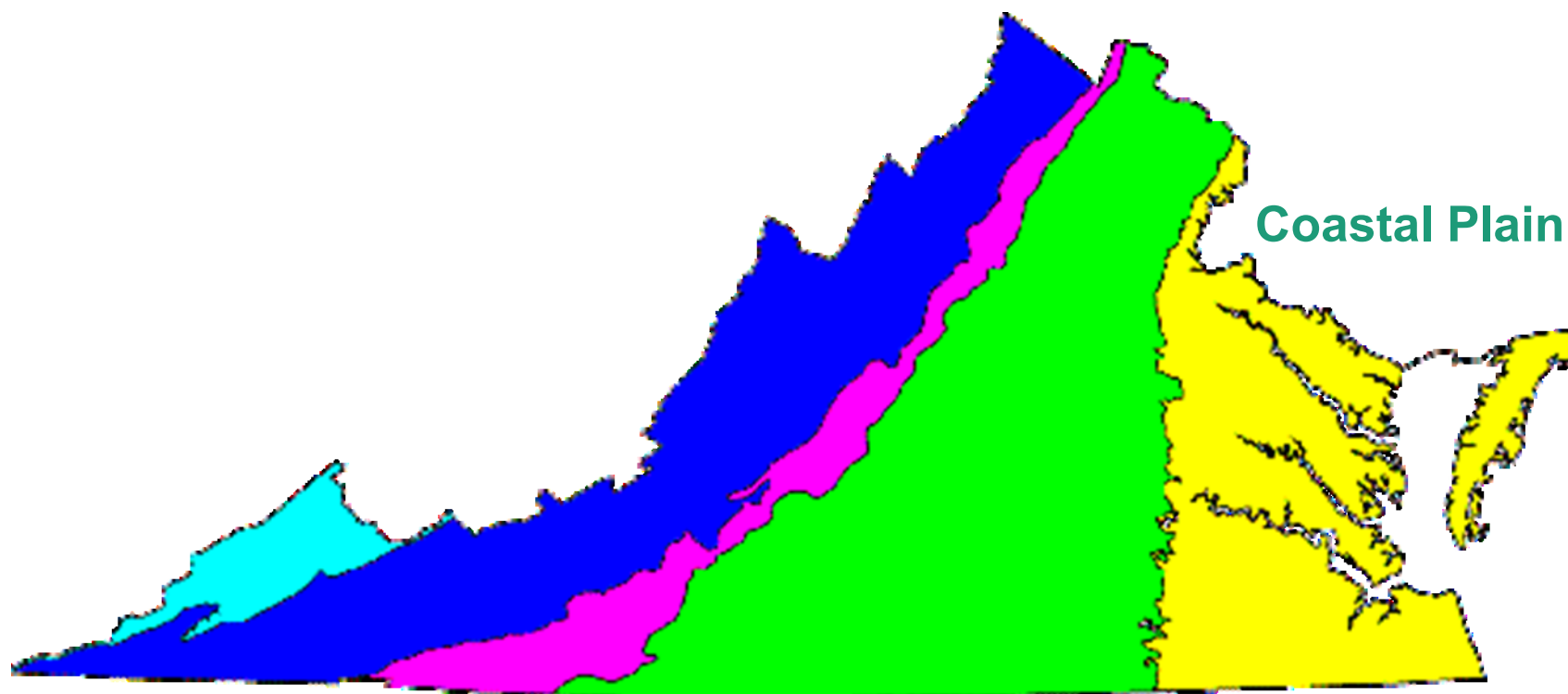
Scott Kudlas

Director, Office of Water Supply

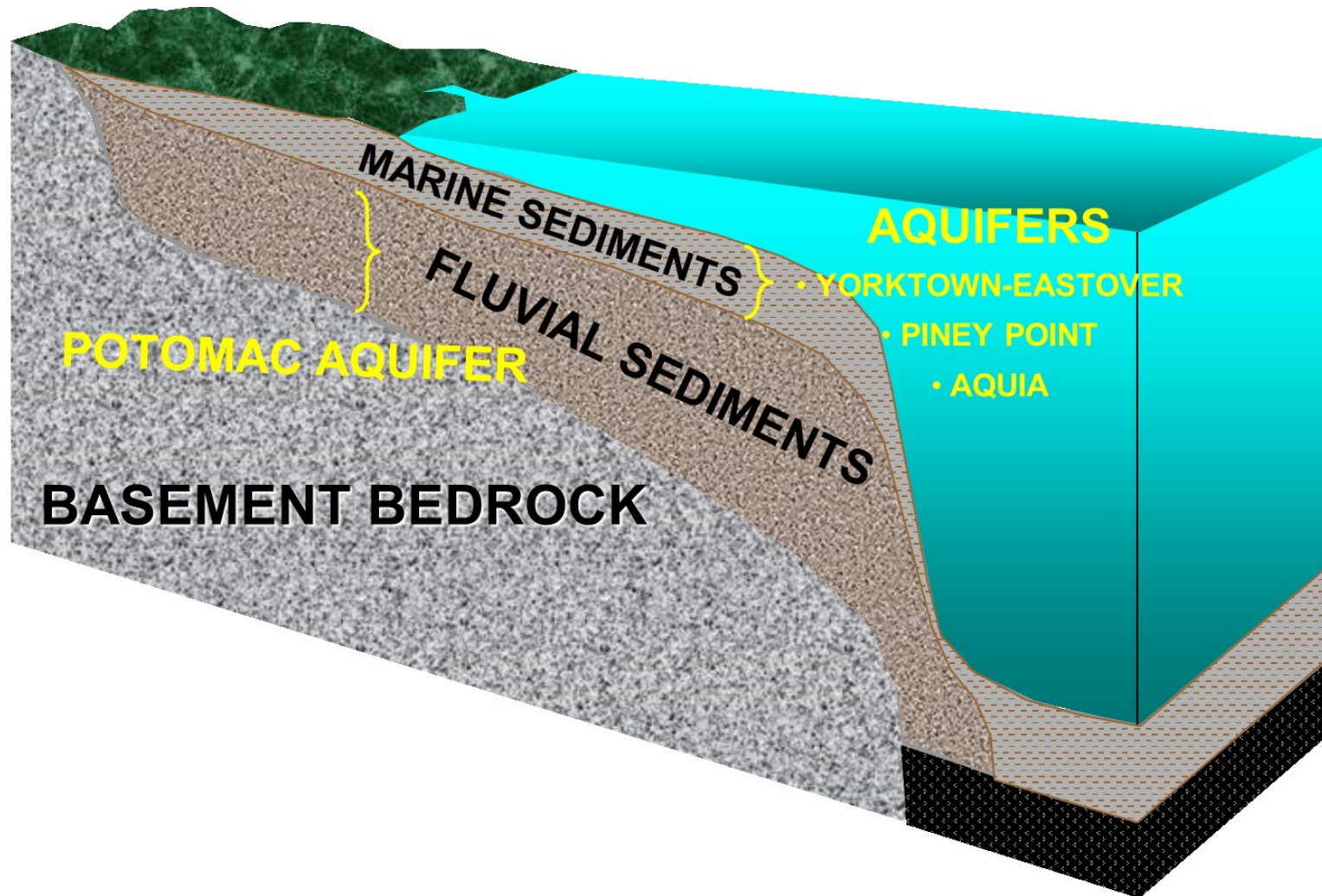
Virginia Department of Environmental Quality

December 5, 2019

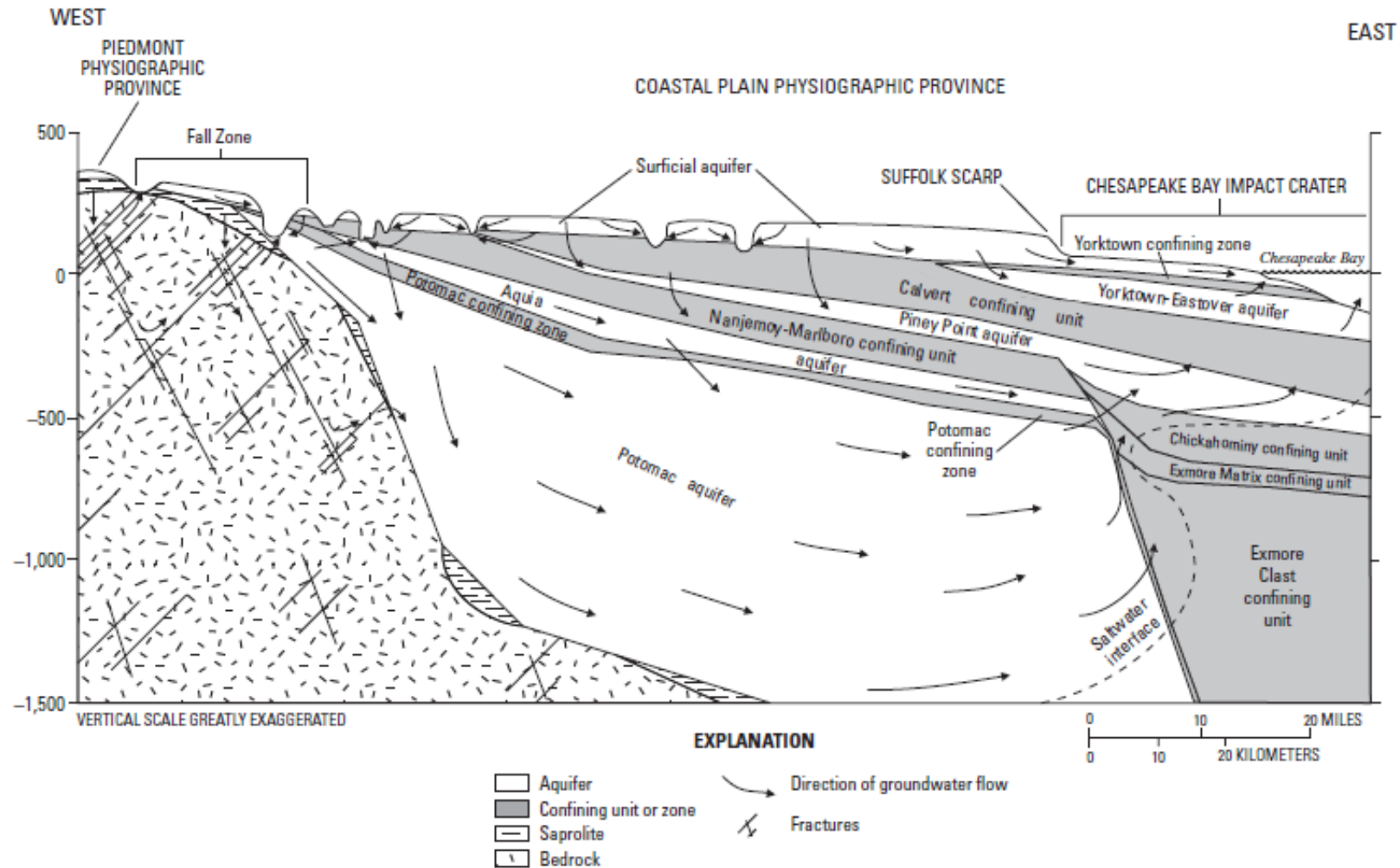
Virginia Physiographic Provinces



Virginia Coastal Aquifer System



Hydrogeology of the Coastal Aquifer System



Special Exception vs. Permit

- Groundwater Withdrawal Permits
 - Are issued for a term of 15 years
 - Can be renewed
 - Renewals are subjected to another application, technical evaluation, and public review process
- Groundwater Withdrawal Special Exceptions
 - Shall not be issued for a term to exceed 15 years
 - Cannot be renewed
 - Are subject to the same review procedures and permit conditions as a groundwater withdrawal permit

What kinds of conditions are typically included in a Special Exception?

PART I: Operating Conditions

- Governs the set-up and operation of the withdrawal, monitoring, reporting and record keeping

PART II: Special Conditions

- Established to protect public welfare, safety, and health or conserve, protect and help ensure the beneficial use of groundwater

PART III: General Conditions

- Standard provisions that are the same in each permit and Special Exception

Chickahominy Power LLC (ID#GW0078700)

- 1,600 megawatt electric generating facility
- Located on a parcel off Chambers Road near SR 106
- Proposes construction of two supply wells
- Non-potable uses of groundwater by facility
 - Construction
 - Facility start-up
 - Operations (evaporative cooling)
- Special Exception term of 7 years, if issued
 - Cannot be extended in time or renewed

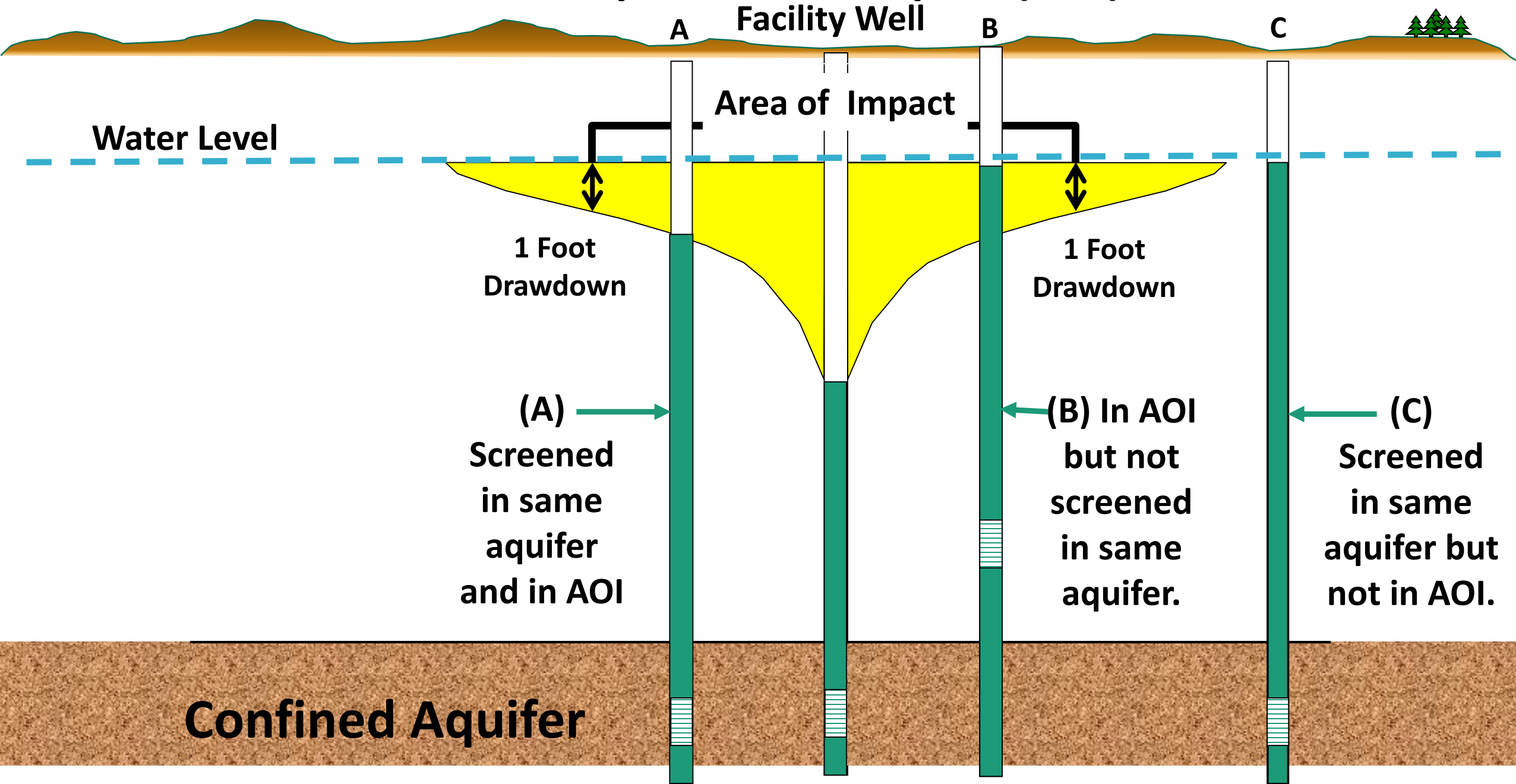
Technical Evaluation

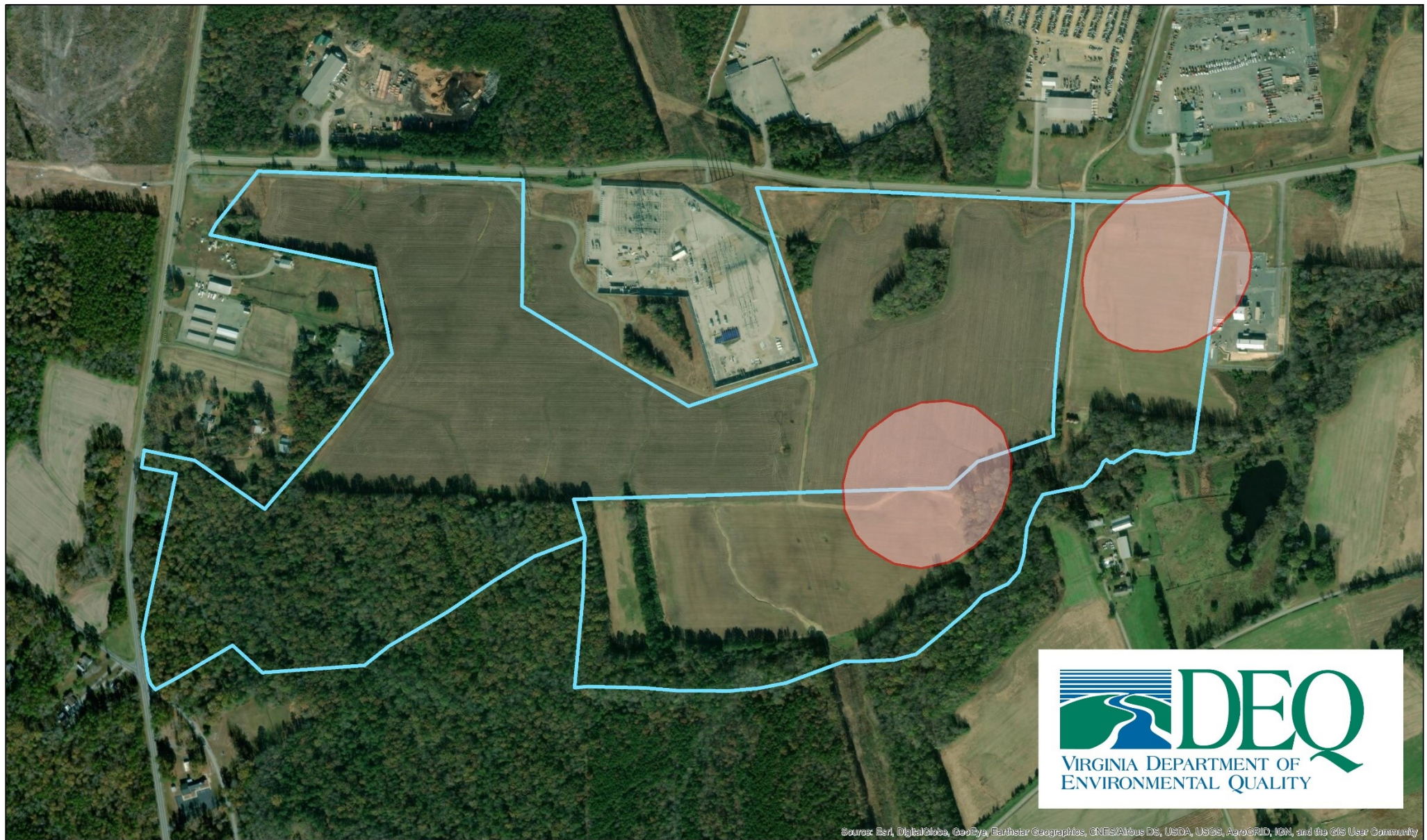
- Objectives
 - Determine Area of Impact (AOI)
 - Determine if proposed withdrawal meet 80% drawdown criteria
 - Determine potential for saltwater intrusion
- Evaluation
 - Use of 3-D regional numeric model, and
 - Analytical 2-D simulation models
 - Simulates drawdown from max volume every day for 7 years

Factors for Technical Evaluation



- Proposed production wells
 - Withdrawal from the Potomac aquifer
 - Top of Potomac aquifer is 260 feet below land surface
- Proposed maximum withdrawal limits
 - 30 million gallons per year (~82,000 gallons per day avg.)
 - 3.5 million gallons per month
- Simulation Period
 - 7 year period of withdrawal

Example Area of Impact (AOI)





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

-  7 Year Area of Impact
-  Facility Parcels

Chickahominy Power Seven Year Area of Impact



Mitigation Plan

- Inside the Area of Impact (red circle)
 - Adverse impacts to existing groundwater users in the same aquifer are presumed to be caused by Chickahominy Power LLC
 - Adverse impact claims must be supported by well documentation that meet specified criteria

Mitigation Plan: Claim information

- Claim must include
 - Documentation you own the affected well
 - Documentation that the affected well was constructed and operated prior to effective date of Special Exception
 - Information about affected well construction, water levels, and historic yield
 - Location of affected well on your property
 - Reasons why you believe withdrawal has adversely impacted your well

Next Steps

- Final Draft documents will be available on DEQ's Water Withdrawal Permitting and Compliance Program webpage by 9 am. December 6, 2019.
- <https://www.deq.virginia.gov/Programs/Water/WaterSupplyWaterQuantity/WaterWithdrawalPermittingandCompliance/ChickahominyPowerPlant.aspx>
- <https://townhall.virginia.gov/L/meetings.cfm>

Next Steps

- Public joint notice of public comment and public hearing
 - Public Comment Period: December 26, 2019 - February 14, 2020 (50 days)
 - Concurrent advertisements: Richmond Times-Dispatch and New Kent-Charles City Chronicle
 - Public Hearing: 6:30 p.m., January 28, 2020 at Charles City County High School (10039 Courthouse Road, Charles City, VA)
- State Water Control Board
 - Staff will present draft special exception and public comments
 - Comments provided during the Public Comment Period will reserve an opportunity to address the State Water Control Board
 - Spring or Summer 2020 Meeting

Public Information Session: Café Setting

- Staff will be available to answer your questions about the proposed groundwater withdrawal Special Exception at each of the four tables in the room
- Reminder
 - The public comment period is scheduled for December 26, 2019 through February 14, 2020
 - Your questions tonight will not be included in the public comment record, tonight is a public information session, not a public hearing or public comment period
- Thank you for your attendance and participation